

5/24

SPLIT

DART AEROSPACE LTD		Work Order:	23577A
Description: Wheel Assembly		Part Number:	D3233-041
Dwg: D3233 Rev. B		Qty:	8
Ref:		Page 1 of 1	

Step	Location	Procedure	By	Date	Qty
1	DC	Issue Traveler	<i>KJ</i>	05.06.15	8
2	MFA	Pick: Qty Part Number Description Batch X2 1 D3233-7 Shaft Sleeve B23002 X2 1 D3233-9 Tire & Rim Assembly B22987 B22421A X2 1 D3332-5 Hub Sleeve B23001A X4 2 NKI 30/20 Bearing & Inner Sleeve M17346 M16867 X8 4 Shim Stock 0.004" thick Brass Shim Stock M17235 X4 2 35x45x7 Axel Seal M17346 or CR 35x45x7 HMS4 R			
3	MFA	Press out bearings that are supplied with D3233-9 wheel and discard them.	CPL	05/06/15	8
4	MFA	Cut shims and assemble as per Dwg D3233	CPL	05/06/15	8
5	MFA	Spray inside hub and bearing with LPS-3 & block hole with a clean dry rag for storage.	CPL	05/06/15	8
6	QC5	Inspect work to Step 5	<i>Z</i>	05-06-17	8
7	ST	Identify and Stock	CPL	05/06/17	8
8	AC	Cost / part: <u>187.78</u>	AP	05/06/27	8
9	DC	Close W/O <u>187.78</u> Inspect Level 21	<i>KJ</i>	05.06.28	8

Rev	Date	Change	Revised By	Approved
A	05.01.12	New issue	KJ/JLM	
B	05.03.03	Made in house	KJ/JLM	<i>JL</i>

3233-9  
 b23003A 3  
 b23003A 2  
 b23003A 13  
 23577  
 w/o

RELEASED  
*05.03.15*

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

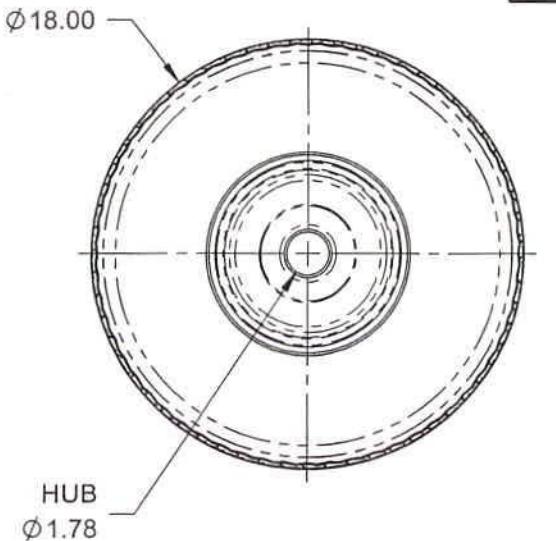
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

NOTE: Date & initial all entries

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

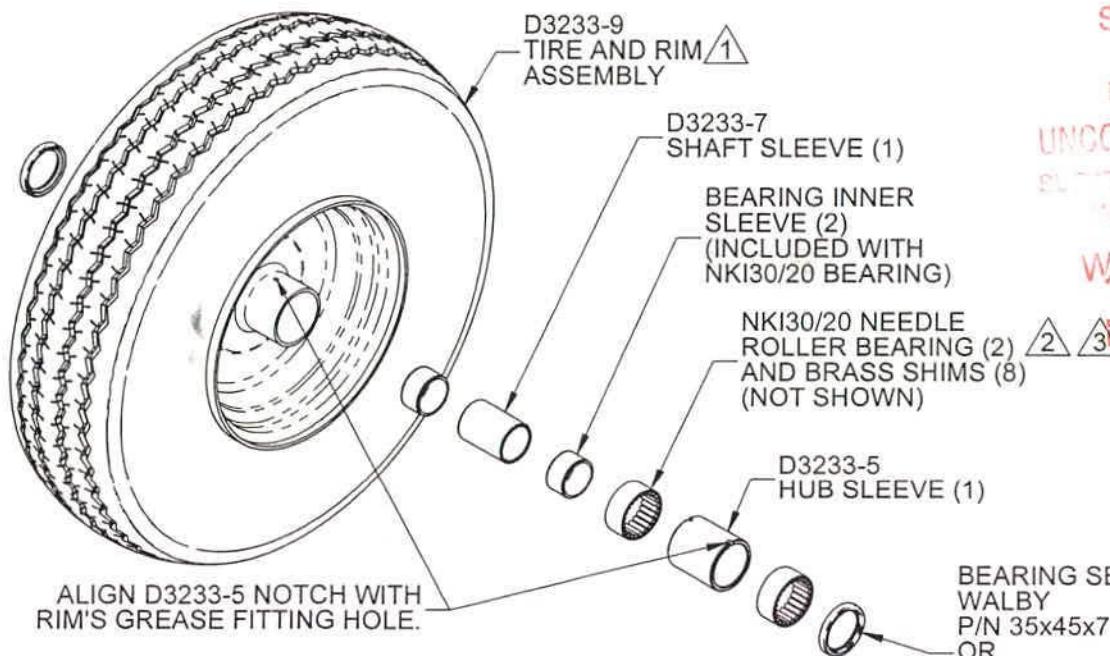
**DART**

DESIGN 13	DRAWN BY JG	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
CHECKED RF	APPROVED EGP	DRAWING NO. D3233	REV. B	SHEET 1 OF 3
DATE 05.03.08		TITLE WHEEL ASSEMBLY	SCALE 1:1	
A	05.02.18	NEW ISSUE		
B	05.03.08	ADDED BEARING SEALS		

**RELEASED**  
OS/OS/04

WHEEL SPECIFICATIONS		
SIZE	MAXIMUM LOAD	MAXIMUM INFLATION LOAD
TIRE: 19.0 x 5.8 RIM: 5.70 x 8.0	910 LBS (RANGE C)	90 PSI*

\* MANUFACTURER'S RECOMMENDATIONS ARE 75 PSI FOR HIGH SPEED USE.

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WITHOUT NOTICE**WORK ORDER**  
NO. 23577**D3233-041 WHEEL ASSEMBLY****NOTES:**

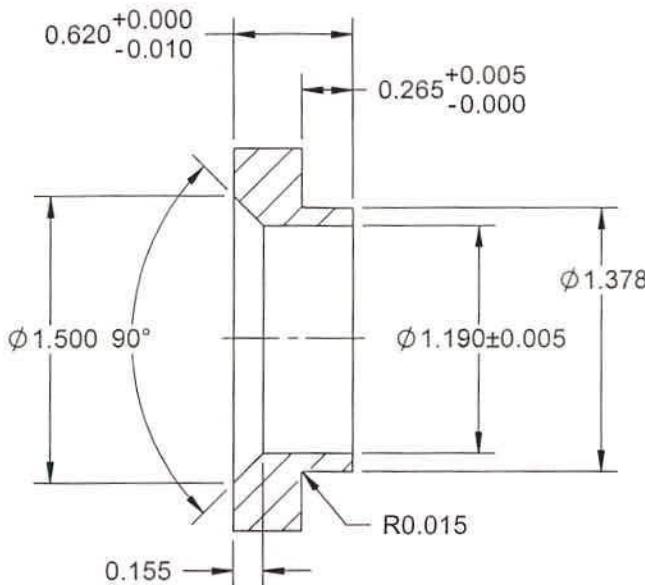
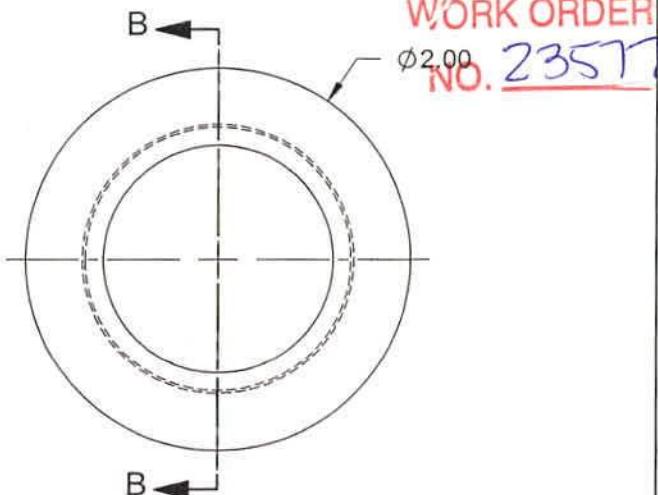
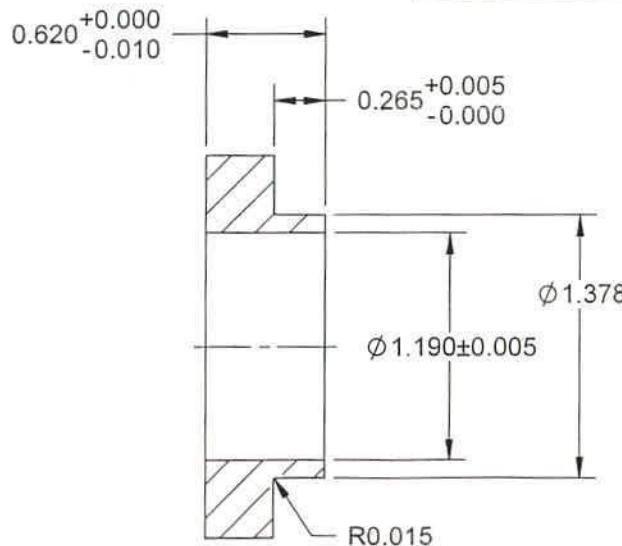
- 1) POSSIBLE SUPPLIER: McMaster-Carr, P/N 8353T74
- 2) POSSIBLE SUPPLIER: GENERAL BEARING
- 3) PRESS FIT NEEDLE ROLLER BEARINGS INTO RIM HUB WITH (4) 0.5 X 0.75 X 0.004 BRASS SHIMS PER BEARING, (1) AT EACH QUADRANT.
- 4) POSSIBLE SUPPLIER: GENERAL BEARING
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

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**DART**

DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>
DATE 05.03.08	

**DART AEROSPACE LTD**  
HAWKESBURY, ONTARIO, CANADADRAWING NO.  
D3233REV. B  
SHEET 2 OF 3TITLE  
WHEEL ASSEMBLYSCALE  
1:1**SECTION A-A****D3233-1 INSIDE WASHER****SECTION B-B****D3233-3 OUTSIDE WASHER****NOTES:**

- 1) MATERIAL: AISI 1020-1025 ROUND TUBING PER MIL-T-5066 OR ASTM A513-00 MT1020 SRA OR AMS 5075 OR AMS 5077, COLD DRAWN, SEAMLESS (REF. DART SPEC. M1020TR)
- 2) FINISH: POWDER COAT FIRE RED (REF. 4.3.5.10) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

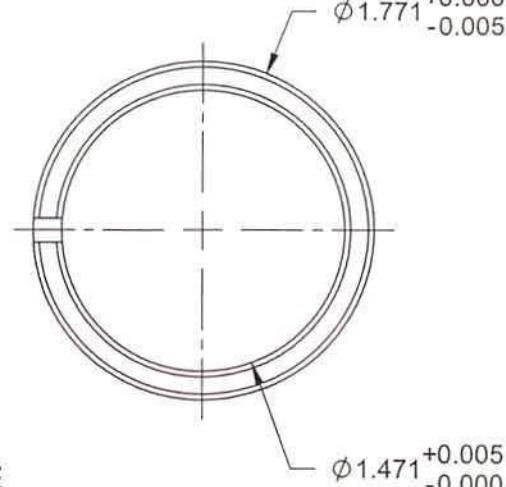
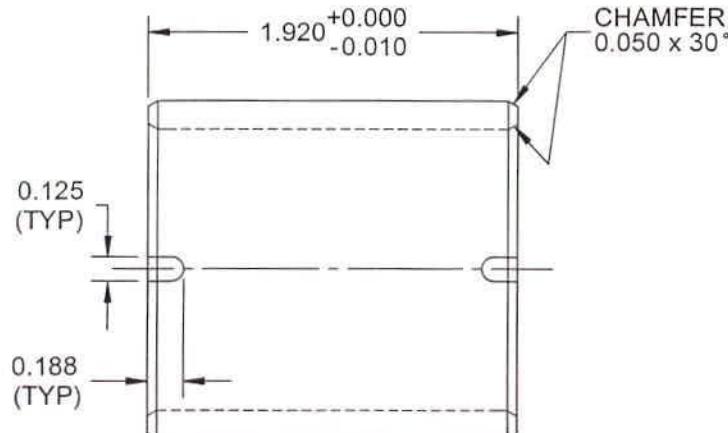
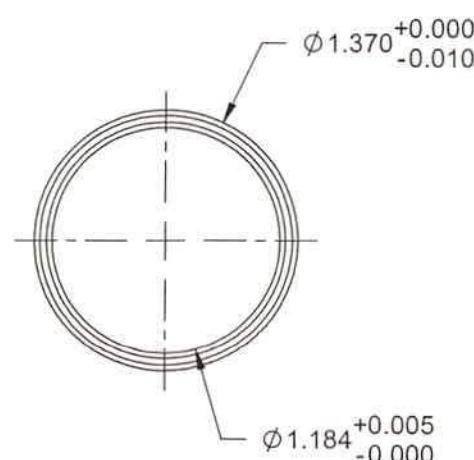
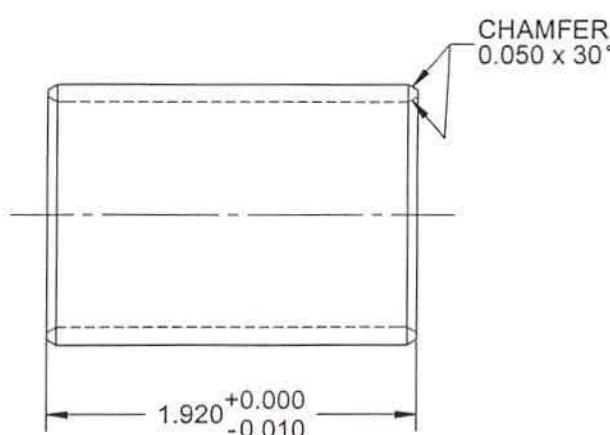
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**DART**

DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>RF</i>	APPROVED <i>LWS</i>	DRAWING NO. D3233	REV. B SHEET 3 OF 3
DATE 05.03.08		TITLE WHEEL ASSEMBLY	SCALE 1:1

RELEASED  
*AB*  
05/05/04

**D3233-5 HUB SLEEVE****D3233-7 SHAFT SLEEVE****NOTES:**

- 1) MATERIAL: AISI 1020-1025 ROUND TUBING PER MIL-T-5066 OR ASTM A513-00 MT1020 SRA OR AMS 5075 OR AMS 5077, COLD DRAWN, SEAMLESS (REF. DART SPEC. M1020TR)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.010 TO 0.030

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WITHOUT NOTICE****WORK ORDER  
NO. 23577**

## Job Costing Report

Dart Aerospace Ltd.  
HawkesburyJun 15, 2005  
10:32 am

Work Order No : 0023577  
 Project Name : D3233-041  
 Project For : WK524  
 Work Order Type : Main  
 Main WO Number :  
 House Part Number : D3233-041  
 Description : Wheel Assembly  
 Manufactured : Yes  
 Amount Req'd : 8  
 Amount Done : 0  
 Start Date : 06-15-05  
 Est Finish Date : 06-17-05  
 Act Finish Date :  
 Drawings Reqd : No  
 Ok for Approval :  
 Approval Rec'd : \$0 Posted to Finished Goods

Department Code:  
 Burden Flags : NNNNNNN  
 WO Status : Open  
 Invoice State : Not Invoiced  
 Invoice Date :  
 Invoice Number :  
 Invoice Amount : 0.00  
 Order Entry No :  
 OE Value : 0.00  
 Est Mark Up : 0.000%  
 Actual Mark Up : 0.000%

	Estimated	Actual	Var. %	Posted	To Post
Material Cost :	0.00	0.00	0.00	0.00	0.00
Engineering Hours :	0.00	0.00	0.00	0.00	0.00
Engineering Cost :	0.00	0.00	0.00	0.00	0.00
Production Hours :	0.00	0.00	0.00	0.00	0.00
Production Cost :	0.00	0.00	0.00	0.00	0.00
Packaging Hours :	0.00	0.00	0.00	0.00	0.00
Packaging Cost :	0.00	0.00	0.00	0.00	0.00
OverHead Hours :	0.00	0.00	0.00	0.00	0.00
OverHead Cost :	0.00	0.00	0.00	0.00	0.00
CNC Hours :	0.00	0.00	0.00	0.00	0.00
CNC :	0.00	0.00	0.00	0.00	0.00
Misc. Hours :	0.00	0.00	0.00	0.00	0.00
Misc. :	0.00	0.00	0.00	0.00	0.00
Burden :	0.00	0.00	0.00	0.00	0.00
Total Cost :	0.00	0.00	0.00	0.00	0.00
Mark up :	0.000	0.000			
Selling Cost :	0.00	0.00			

	Estimated	Actual
Labour Hrs/Amount Done :	0.00	0.00
Profits/(Loss) :	0.00	0.00

# ENGINEERING CHANGE NOTICE P501-6641.

DART AEROSPACE LTD				ECN #:
Date: 05.02.21				664
Project No: D412-738/D206-739/D350-740		Created By: <i>RF</i>	Checked By: <i>MM</i>	
Project Name: DUAL DISABLING KITS		Approved By: <i>MM</i>	Approved By: <i>MM</i>	Approved By: <i>AS</i>
Description of Change: RELEASE: D3368 REV. A✓ D3384 REV. A✓ 1IN-D412-738 REV. A  1IN-D350-740 REV. B D3233 REV. A1✓				
Notification/Acceptance		Affected	Initials	Authorization
QA	✓			<i>MMB DK</i>
Production	✓			
Planning	✓			
Marketing	n/a			
Engineering Actions	Yes	No	Responsible	To happen by:
Update Blue/Pink File	✓	✗	KJ	05.02.28
Update DSI File	✓			
Update D-Part Master Binder	✓		KJ	05.02.28
Update Grey Project Binder	✓	✗	KJ	05.02.28
Update DEO Binder	✓			
Update Master Document List	✓			
Update Drawing Approval Record	✓			
Update Change Record Form	✓		RF	05.02.28
Move Electronic File	✓		KJ	05.02.28
Notify TCA of Change	✓			
Notify FAA of Change	✓			
Update QSI 021	✓			
Update QSI 036	✓			
Scan Documents	✓			
Update MIS Database	✓		KJ	05.02.28
Update Access Database	✓		KJ	05.02.28
Verification ARC	✓			
Create/Update STC Approval List	✓			
Create/Update IPP's	✓		JLM	05.03.14
Create/Update BOM's	✓		KJ	05.03.14
Create/Update PPP's	✓	✗	KJ	05.02.28
Update Paperwork Kits in Production	✓	✗	KJ	05.02.28
Update Paperwork Kits in Stock	✓	✗	KJ	05.02.28
Rework/Scrap Current Production	✓			
Rework/Scrap Kits in Stock?	✓			
Create/Update Laminated Dwgs	✓			
Create/Update Controlled Dwgs	✓		KJ	05.02.28
Create/Update FAI sheets	✓		JLM	05.03.08
Create/Update CNC Programs	✓		JLM	05.03.08
Create/Update Tooling	✓		JLM	05.03.08
Create/Update DXF File	✓			
MPP required?	✓			
Notify Previous Customers	✓			
Notify Eurocopter France	✓			

Notes:

- BOM'S & IPP'S ARE ALREADY DONE FOR D412-738
- CNC PROGRAM FOR D3368 ALREADY DONE
- UPDATE IPP & BOM FOR D3233 REV. A1 / D350-740-011 / D355-740-013 BOTH AT CHG 002
- CORRECT PIN IN INVENTORY FOR D3233-9 INSTEAD OF D3233-041 FOR RECEIVING TIRES.
- D350-740-011 & D356-740-013 CHG 002
- UPDATE PAPERWORK D350-740 IN STOCK / PRODUCTION

D3233 REV A1 IS SUPERCEDED BY REV B. MPP/BOM done 05.03.14 ✓